



The athlete's approach to gas

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Maarten Wetselaar

Integrated Gas & New Energies Director, Royal Dutch Shell plc
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Maarten Wetselaar is Integrated Gas & New Energies Director and a member of the Executive Committee of Royal Dutch Shell. He is responsible for Shell's Integrated Gas business, including the industry-leading liquefied natural gas and gas-to-liquids positions. He also leads the New Energies business, including Shell's investments in new fuels, new energy carriers and new business models for a low-carbon future.

Maarten holds a master's degree in Economics from the University of Groningen and a post doctorate Controllers degree from VU University of Amsterdam in the Netherlands. After joining Shell in 1995 he held a variety of financial, commercial and general management roles in Shell's downstream and trading businesses in Europe, Brazil and Ghana.

He continued his career in Shell's Upstream business, holding financial and commercial Vice President roles in the Middle East and Russia/CIS.

In 2009, Maarten became Executive Vice President Finance in Upstream International. From 2013 to 2015 he served as Executive Vice President for Integrated Gas, based in Singapore.

Maarten Wetselaar argues that the gas industry would benefit by taking a couple of lessons from the approach of elite athletes. Both athletes and the industry need the right conditions to excel and they both need constant self-improvement. Since the conditions look good for gas as the energy transition unfolds, the industry needs to adopt the athlete's commitment to constant self-improvement if it is to thrive. This means cutting costs and taking control of the challenge methane poses to the industry.

Ladies and gentlemen,

Exactly 125 years ago, an oil tanker from Shell, filled with Russian kerosene, headed for Singapore. It marked the beginning of the successful partnership between Shell and Russia. Some of you may know a bit about this already.

What you probably don't know, however, is that at that time, another significant event took place. In Norway, in 1892, the International Ice Skating Union officially recorded its first world records. The Norwegian speed skater Einar Halvorsen set the record for the 500 meters at 50.2 seconds. It was an amazing time... an astonishing athletic achievement... and it would be regarded today as unbelievably slow. In a race between Halvorsen and the Russian skater Pavel Koelizjnikov, who is the current record holder... Halvorsen would barely have made it half way round the track by the time Koelizjnikov finished. Every year, athletes go faster. Records fall and then fall again. And our industry can learn much from that relentless quest to be better.

I believe there are two clear parallels between sports and oil and gas. The first is that both need the right conditions to excel. Hard ice for speed skating, a fast car for racing... the right investment climate for oil and gas. The second is that, whether in industry or sport, both need to commit to a lifetime of self-improvement if they want to win. In both, if you do not improve the competition will overtake you... because the competition will always improve.

When it comes to our industry, this quest of self-improvement is all the more important when you consider it in the context of the energy transition. The rules of the game are

changing... we need to be fit enough to cope with that. The energy transition is a great challenge to the world, but also a great opportunity for business. With a gradual transition towards a lower-carbon energy system, electricity's role in the energy mix is expected to grow. From 18% today to as much as 50% by the end of the century. That still leaves a huge chunk of energy demand that cannot be electrified. There is no reason why gas should not play an increasingly large role in that space. Since, according to Shell's Scenario team, energy demand could double this century. That is a big market to play in.

There's a lot that has to be done to ensure gas plays a big part in this future energy mix. What role does Russia play? When I think of Russia and I think of gas, I remember what a colleague once told me when we went for a drink after a long day of work: 'There are two different kinds of vodka in Russia. Vodka that is good and vodka that is very good.' The same goes for current conditions for Russian gas.

Let us look West first. In the West, Europe's demand for gas has been rising since 2014. Last year, coal-fired power generation fell by 94 terawatt hours, while gas-fired power grew by 101 terawatt hours. This helped a 4.5% drop in CO2 emissions from Europe's power sector compared to 2015, according to the European think tanks Sandbag and Agora Energiewende. Moreover, on 21 April of this year the UK did not use a single lump of coal to generate the power it needed. This was for the first time since 1882.

The balance of demand may be swinging as the energy transition unfolds, but one thing remains the same: as ever, Europe needs a reliable gas supplier. Over the

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decades, Europe has learnt that Russia is that reliable supplier. That is why Russia supplies 34% of Europe's gas. Philip [Lambert], our moderator today, has observed that in the last 50 years - or 18,262 days - there were only 14 days when Russian gas did not steadily flow. That is a reliability percentage of well over 99.9%... all the more impressive when you consider that period includes the Cold War.

I think Nord Stream 2 will build on Russia's reputation as a reliable supplier. It is expected to provide enough gas to supply 26 million households. According to Energiewissenschaftliches Institut der Universität Köln (EWI), Nord Stream 2 could save European countries billions of dollars in 2020, depending how expensive LNG would be as an alternative.

Now let us look East. For me, looking East makes me think of Sakhalin 2... it makes me think on LNG. World conditions are right for LNG and Sakhalin 2 is well positioned to take advantage of that. The global market for LNG is on the rise. The number of countries importing LNG has gone up from 10 just 17 years ago to 39 now. The demand for LNG has gone up during that same period from 100 million to 265 million tonnes a year. This is enough to supply not just every home in Germany, but every home in Germany more than twelve times over.

This market is expected to keep growing. LNG demand is set to grow at twice the rate of gas demand, at 4 to 5% a year between 2015 and 2030. Much of this growth is expected East of Suez, particularly in China, India and South East Asia. The LNG trade also is changing to meet the needs of buyers, including shorter-term and lower-volume contracts with greater degrees of flexibility.

Turning to China, ten years ago, its gas markets was in its infancy - well below the UK gas market size, with LNG imports having only just commenced. The last decade, the Chinese gas market has grown in excess of 10% a year as a result of

economic growth and the battle against air-pollution. Wood Mackenzie have forecasted the Chinese gas market to be as large as the European gas market within the next 10 years. LNG is one of the key supply sources underpinning this gas growth. A decade ago it was almost non-existent. A decade from now, it is expected to be as big as the Japanese market, the world's largest LNG importer. Sakhalin is the closest LNG supply point to China and Japan, which gives it an advantage over others. This helps when you are in a race.

LNG enables countries to meet fluctuating seasonal demand. Also, LNG makes gas accessible to countries with smaller demand. But opportunities for LNG do not stop in emerging Asian economies. Globally, new markets are opening up for LNG. Marine transport, for example, is a growing area. Next year, Sovcomflot will launch the first ever crude oil tankers powered by LNG. LNG that Shell will provide.

And I am pleased Shell and Gazprom have just agreed to explore opportunities to develop a second LNG facility. This time in the sea port of Ust Luga on the Baltic Sea. The first practical steps for this plant, with a capacity of 10 million tons a year, were set in June when we signed the key terms of the Joint Venture Agreement. And in August, when Gazprom and Shell signed a further agreement to prepare a Joint Feasibility Study for the Baltic LNG Project.

Whether the Russian gas sector looks West or East, the future for business opportunities shines bright. Despite these great conditions, however, there is no room for complacency. We need an athlete's approach: always improve yourself, always do better. Because there are more contestants entering the race and they all want to win. In both the gas and LNG markets the competition is hard and I think it will become tougher still in the future. With Sakhalin-2, Gazprom has shown the willingness to compete in this market... a refusal to stand still... a determination to improve.

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Last year, Sakhalin-2 produced almost 11 million tonnes of LNG. And today Shell and Russia are working to develop Sakhalin-2 Train-3, which will increase production. Its advanced technologies will also make it more efficient, which can bring down the cost of Russian LNG.

A focus on costs, for the whole sector, is essential. We have to continue to cut costs across the supply chain, from companies like Shell to drilling contractors to equipment suppliers and distribution chains. And we must use these gains to make gas more affordable for our customers.

Methane emissions is another challenge. If the gas industry emits high levels of methane, it is at risk of undermining the environmental credibility of gas in the future energy mix. As an industry, we need to take control of this risk. Make sure we spot methane leaks. Report those leaks in a transparent way across the chain from production to liquefaction to distribution. And reduce leaks. Besides the environmental argument behind taking these

steps, there is also an economic incentive. The less we lose, the more we sell.

Ladies and gentlemen,

Over the last 125 years, between Einar Halvorsen and Pavel Koelizjnikov, the world speed skating record over 500 meters has become 16.3 seconds faster. 75 different speed skaters held the record during this time. The level of competition in sport is extreme. It is no less extreme for our sector.

Over the past 125 years, Shell in Russia has continuously developed product, projects and prospects with Russian partners to keep ahead of the competition. A great partnership between Gazprom and Shell has emerged from that shared history. A partnership that is robust, resilient and ready for the future. Today, this future looks promising. The conditions are currently right. And I am sure that if we take an athlete's approach, we will keep setting new standards for 125 years to come.

Thank you.

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